



FIG. 1

Performance Range Criteria

Performance Range	Minimum Breakaway Torque (Inch-pounds)
Class 10	410,000
Class 20	630,000
Class 30	903,000
Class 40	990,000
Class 50	1,350,000
Class 60	1,950,000
Class 70	2,450,000
Class 80	3,200,000
Class 90	3,800,000
Class 100	4,400,000
Class 110	5,100,000
Class 120	5,900,000

FIG. 2

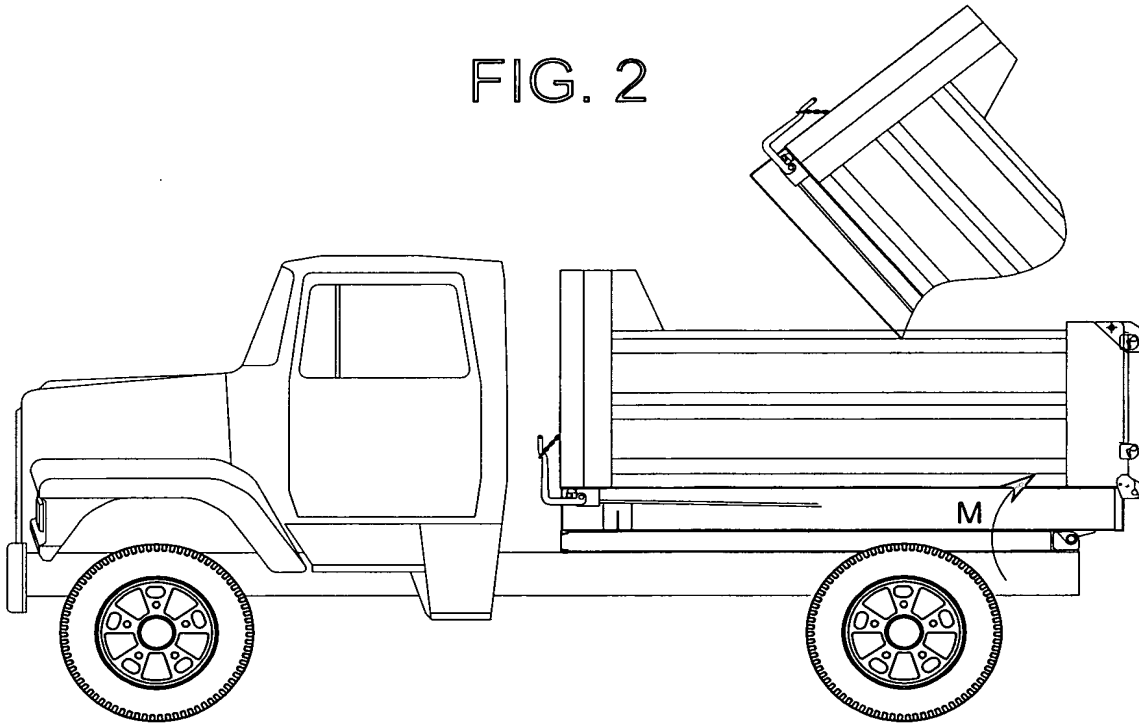


FIG. 3

NTEA CLASSMINIMUM MOMENT (M)

BREAK AWAY TORQUE (IN-LB)

10	410,000
20	630,000
30	903,000
40	990,000
50	1,350,000
60	1,950,000
70	2,450,000
80	3,200,000
90	3,800,000
100	4,400,000
110	5,100,000
120	5,900,000

FIG. 4B

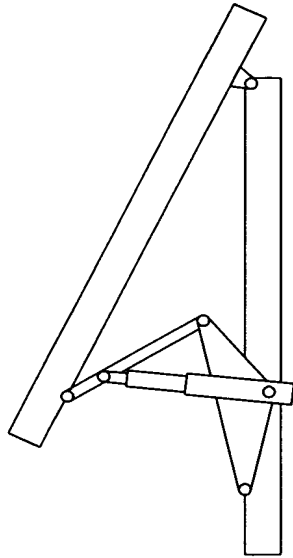


FIG. 4D

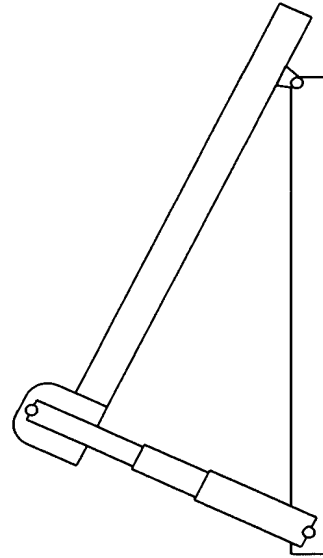


FIG. 4A

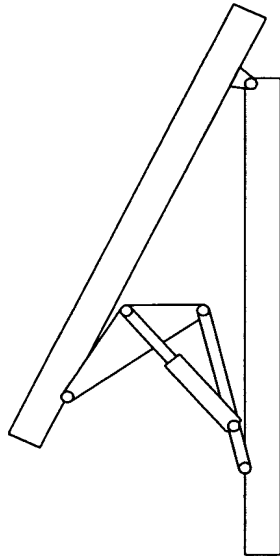


FIG. 4C

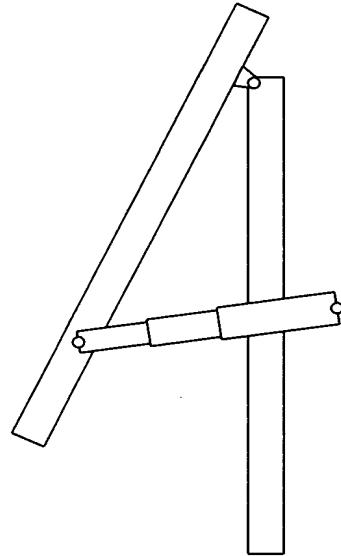


FIG. 4F

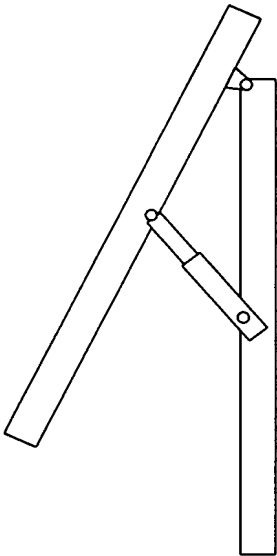


FIG. 4H

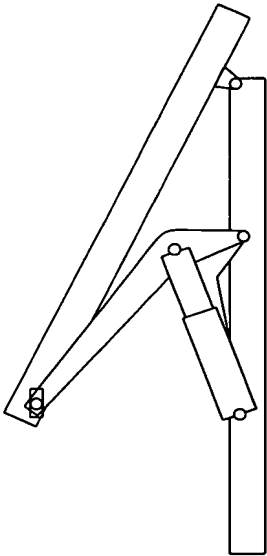


FIG. 4E

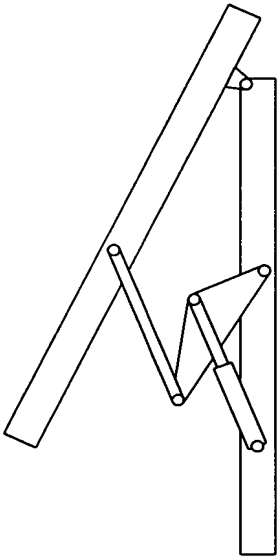


FIG. 4G

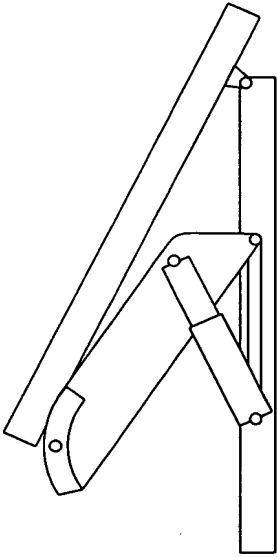


FIG. 4I

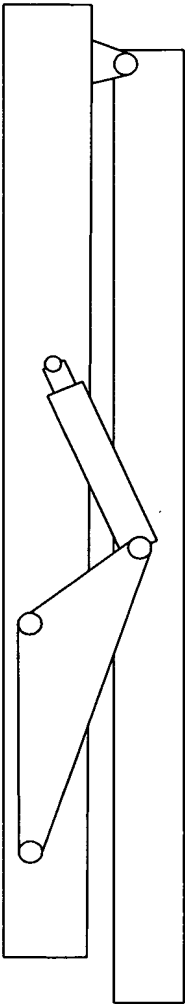
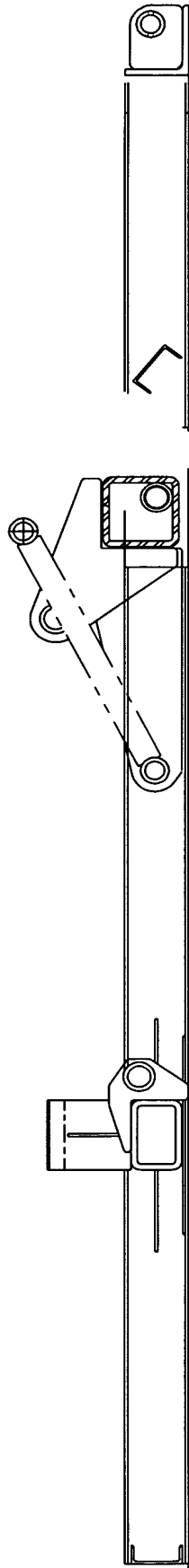


FIG. 5



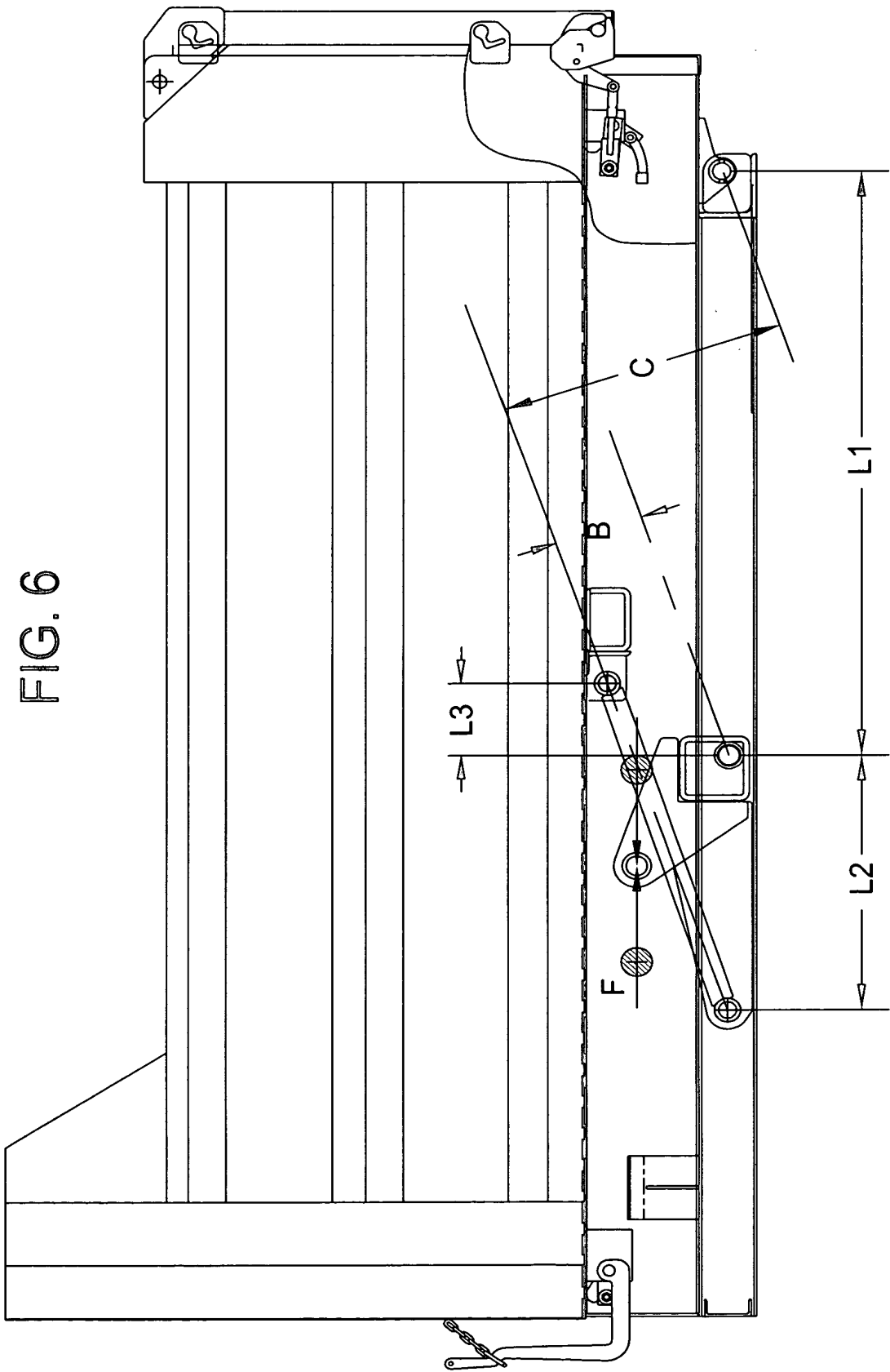


FIG. 7

Geometry

L1	L2	B	C	C/B	L3	F
42	24	10.336	27.672	2.68	-2.00	91,767
42	27	12.288	30.681	2.50	-6.50	98,399
42	30	14.325	33.687	2.35	-10.75	104,474
47	24	8.998	25.824	2.87	2.00	85,605
47	27	10.78	28.781	2.67	-2.91	92,022
47	30	12.659	31.756	2.51	-7.50	97,938
50	24	8.379	25.016	2.99	4.25	82,291
50	27	10.027	27.809	2.77	-0.75	88,585
50	30	11.697	30.435	2.60	-5.25	94,423
55	21	6.323	21.984	3.48	12.50	70,663
55	24	7.78	24.756	3.18	6.75	77,210
60	21	5.677	20.962	3.69	16.75	66,537
60	24	6.975	23.527	3.37	10.75	72,837

FIG. 8

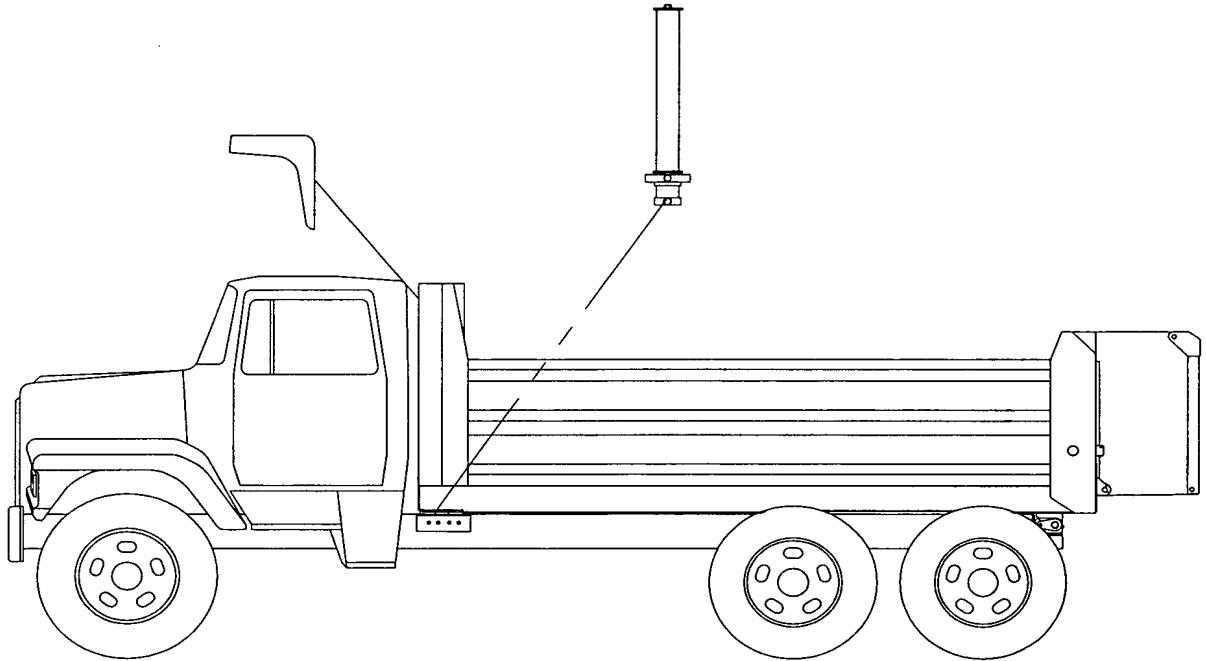
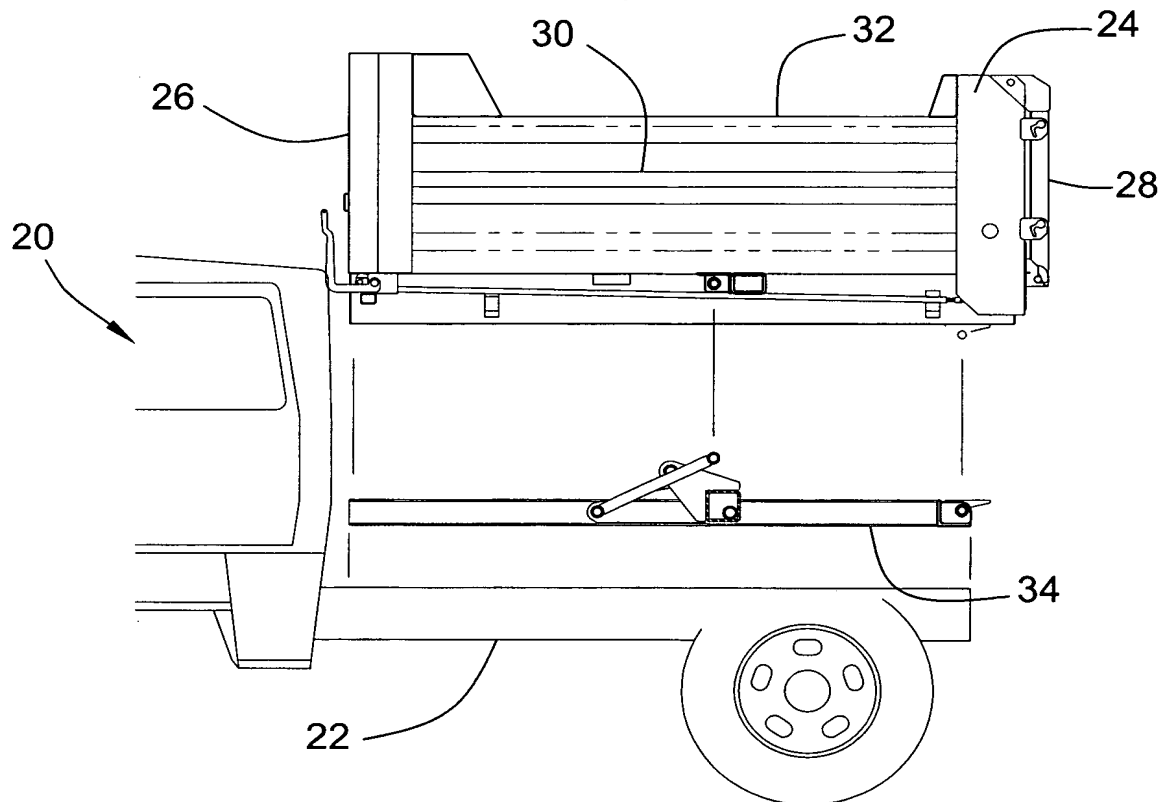
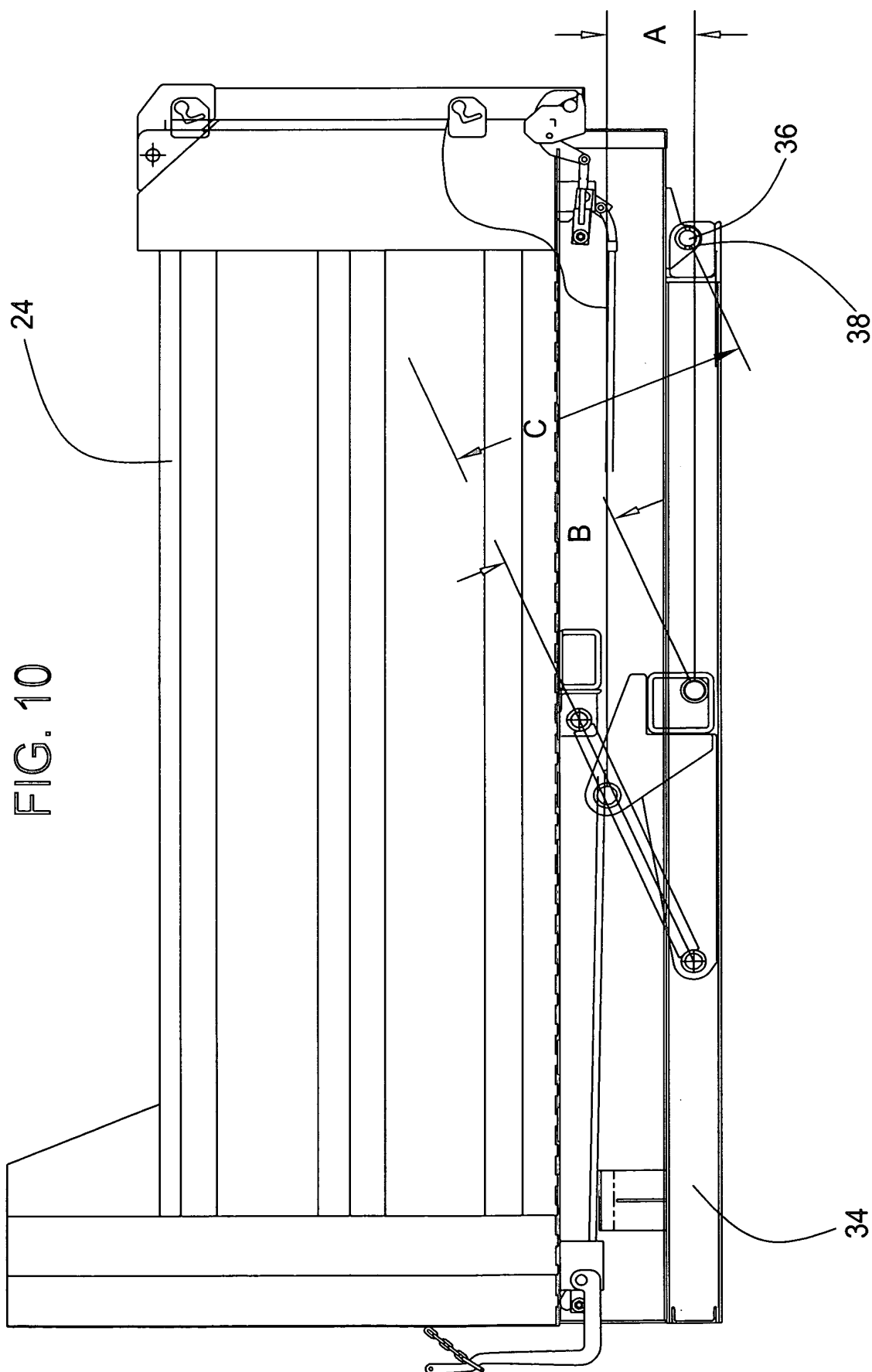


FIG. 9





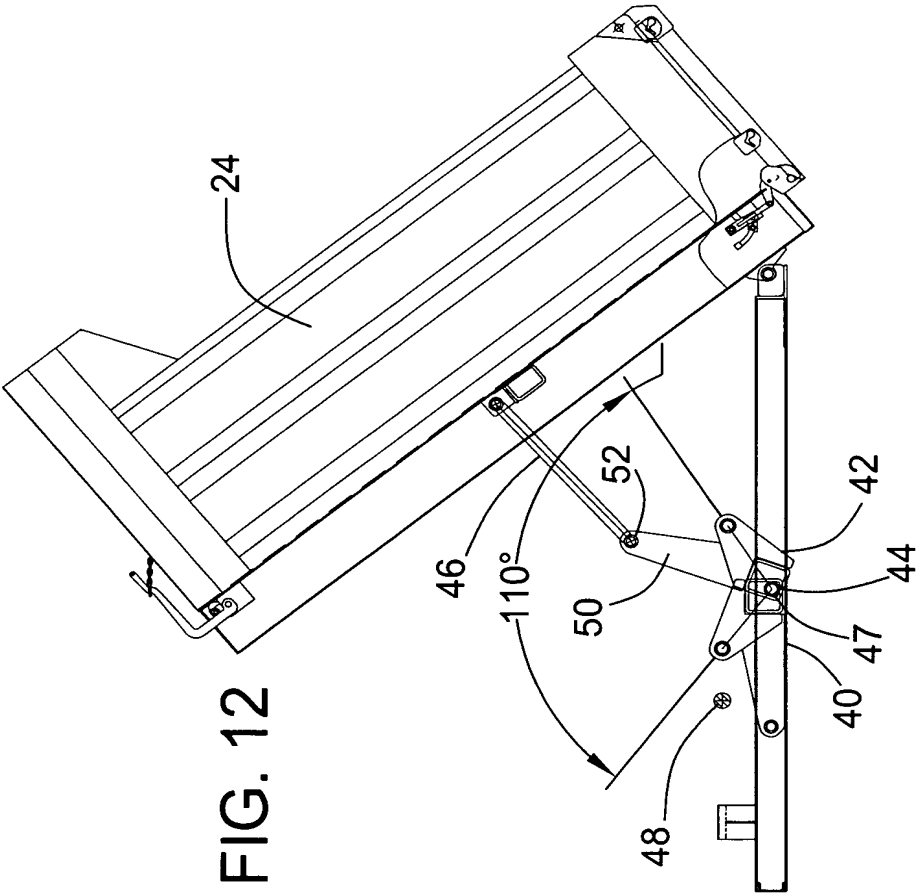


FIG. 11

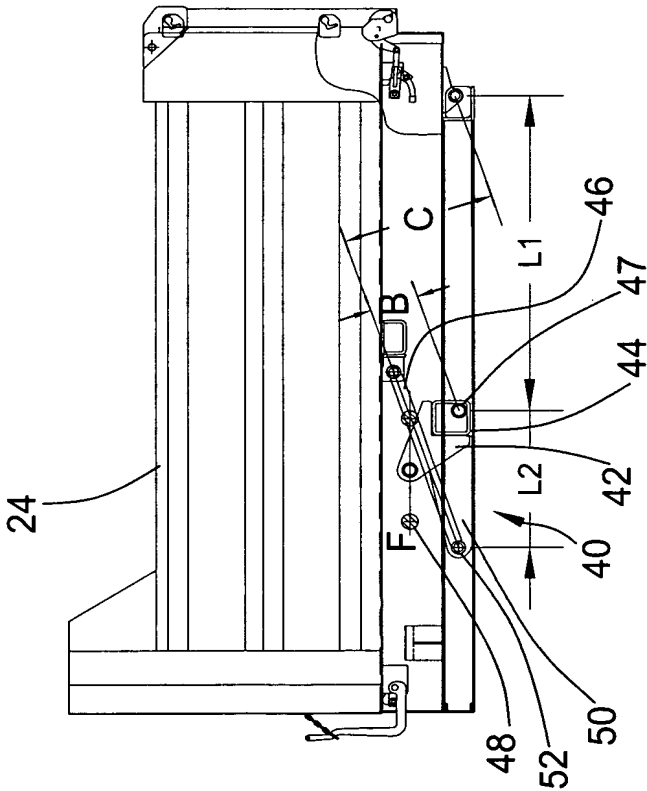


FIG. 13
MOMENT DIAGRAM - 10' BODY

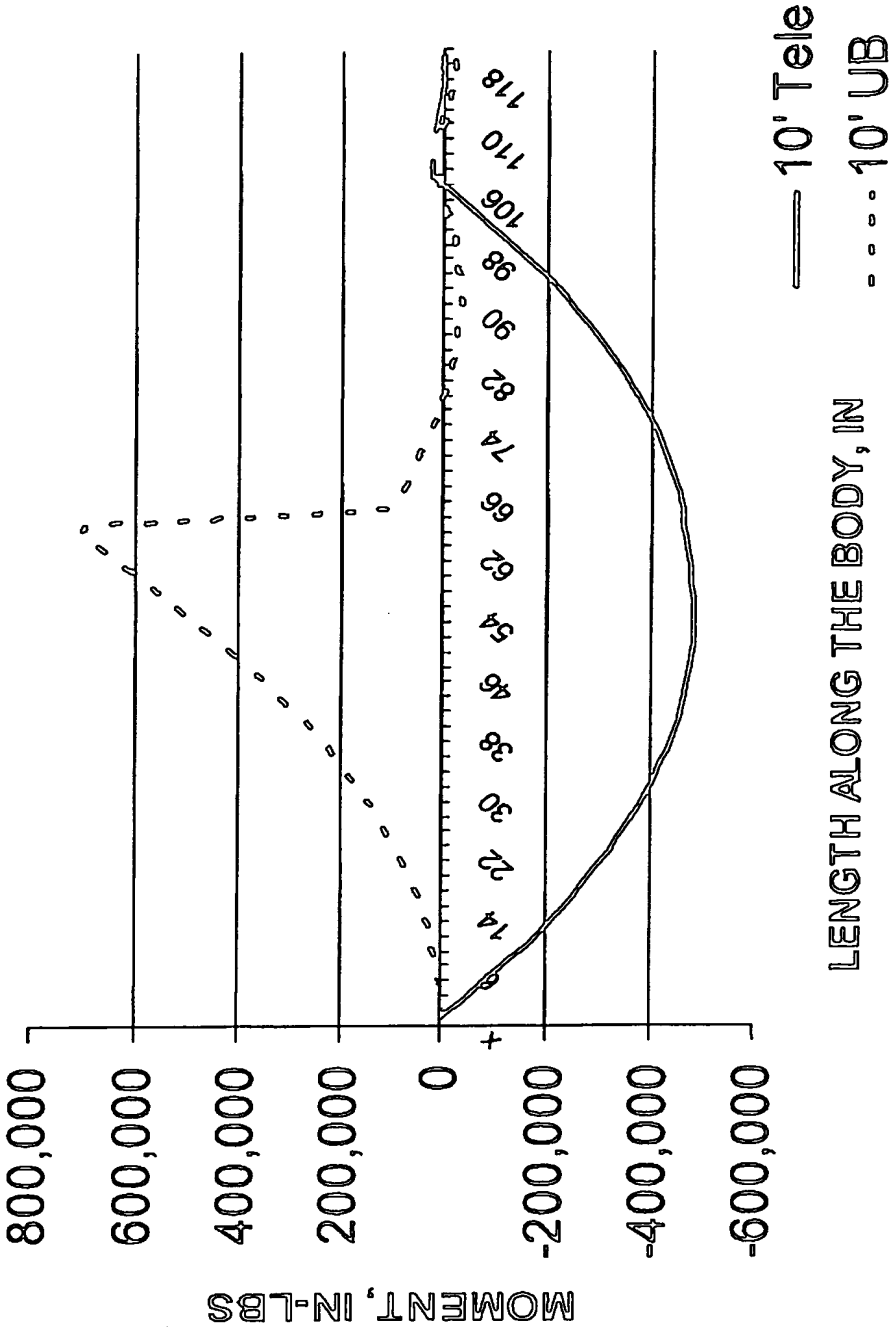
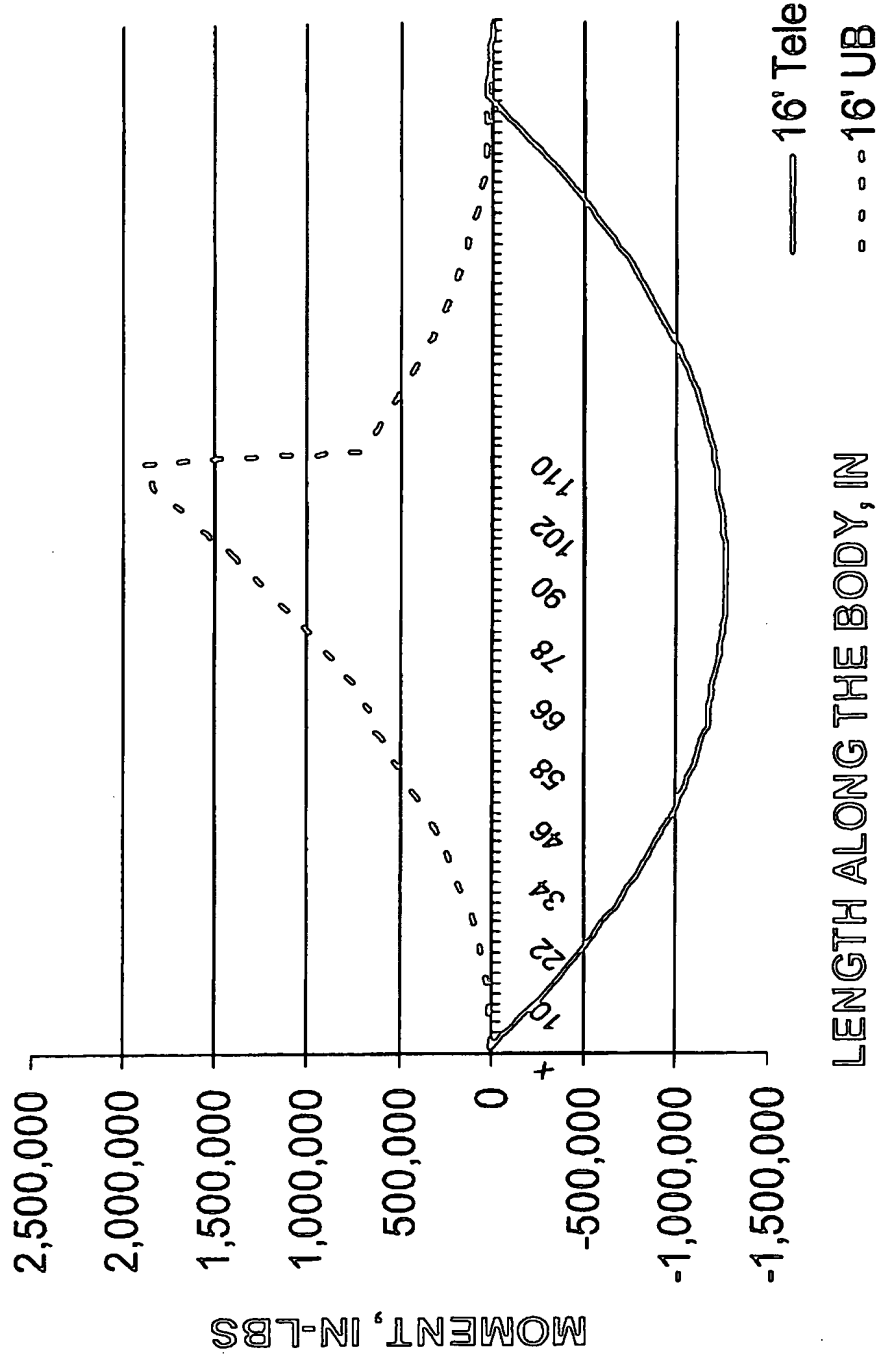


FIG. 14
MOMENT DIAGRAM - 16' BODY



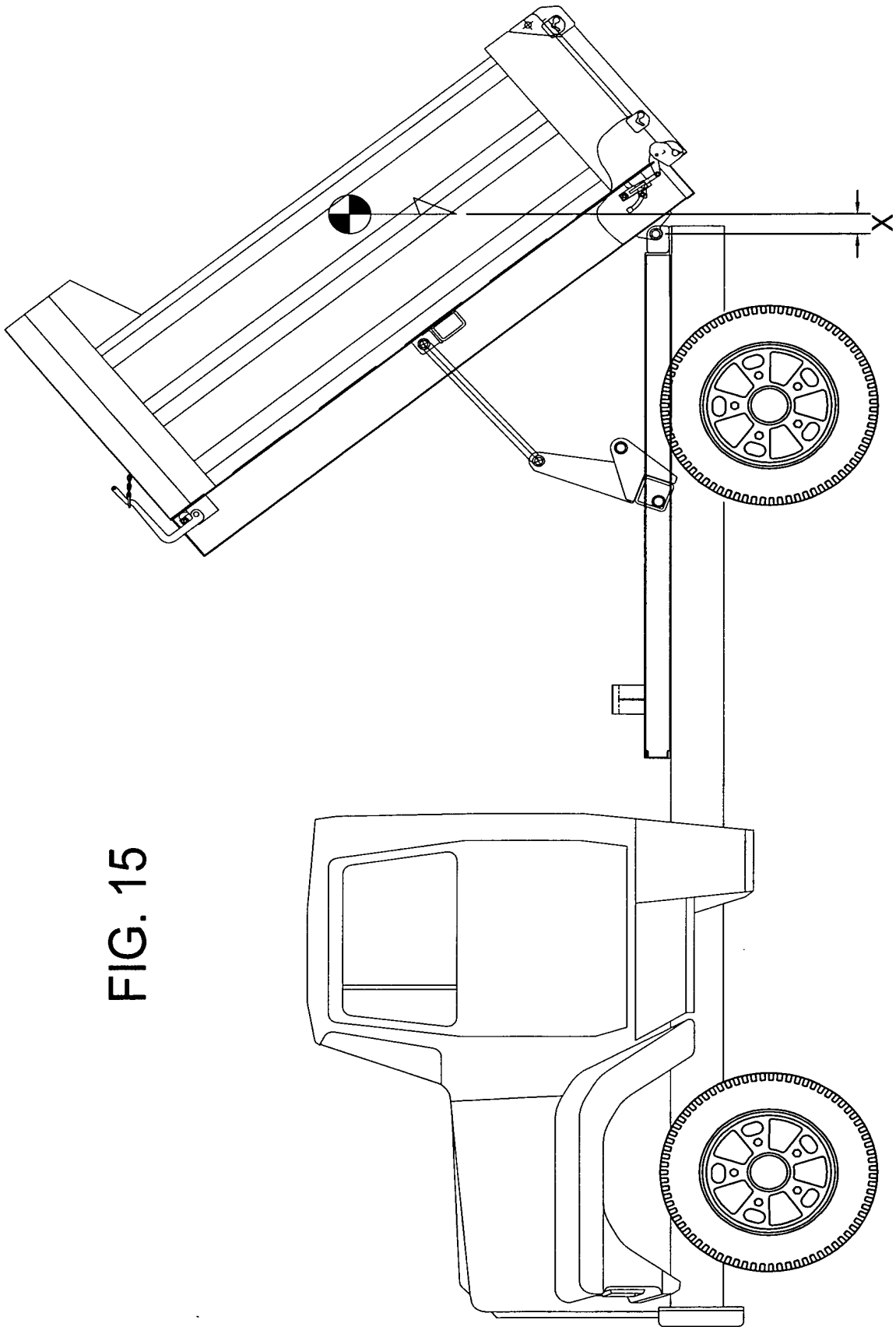


FIG. 15

FIG. 16

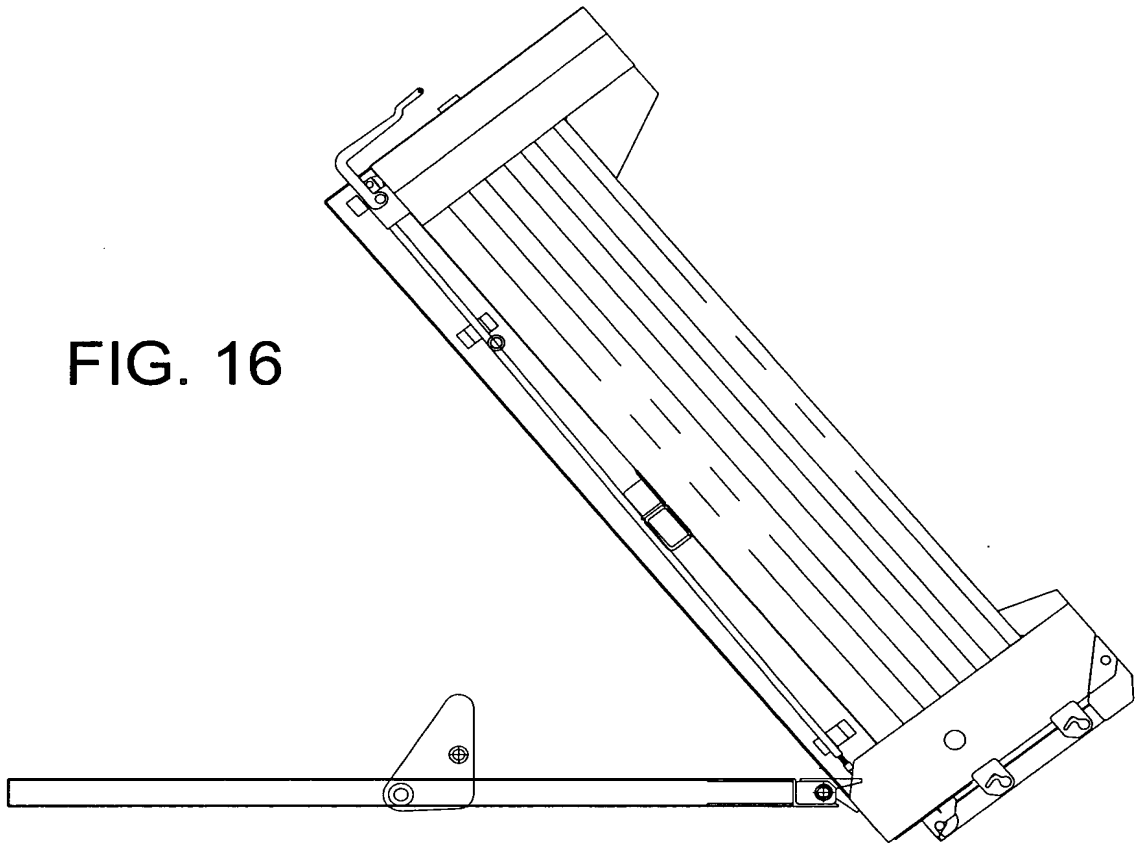


FIG. 17

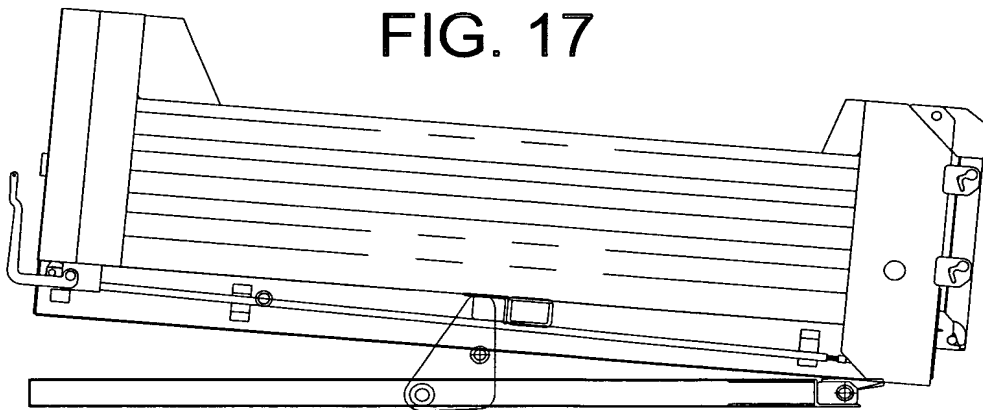


FIG. 18

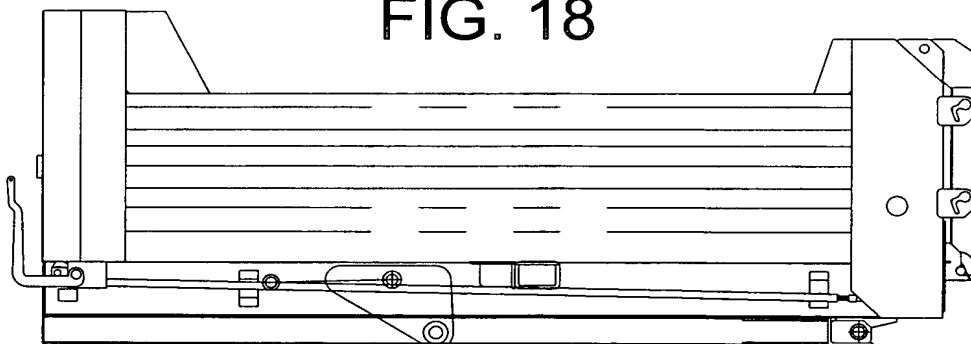


FIG. 19

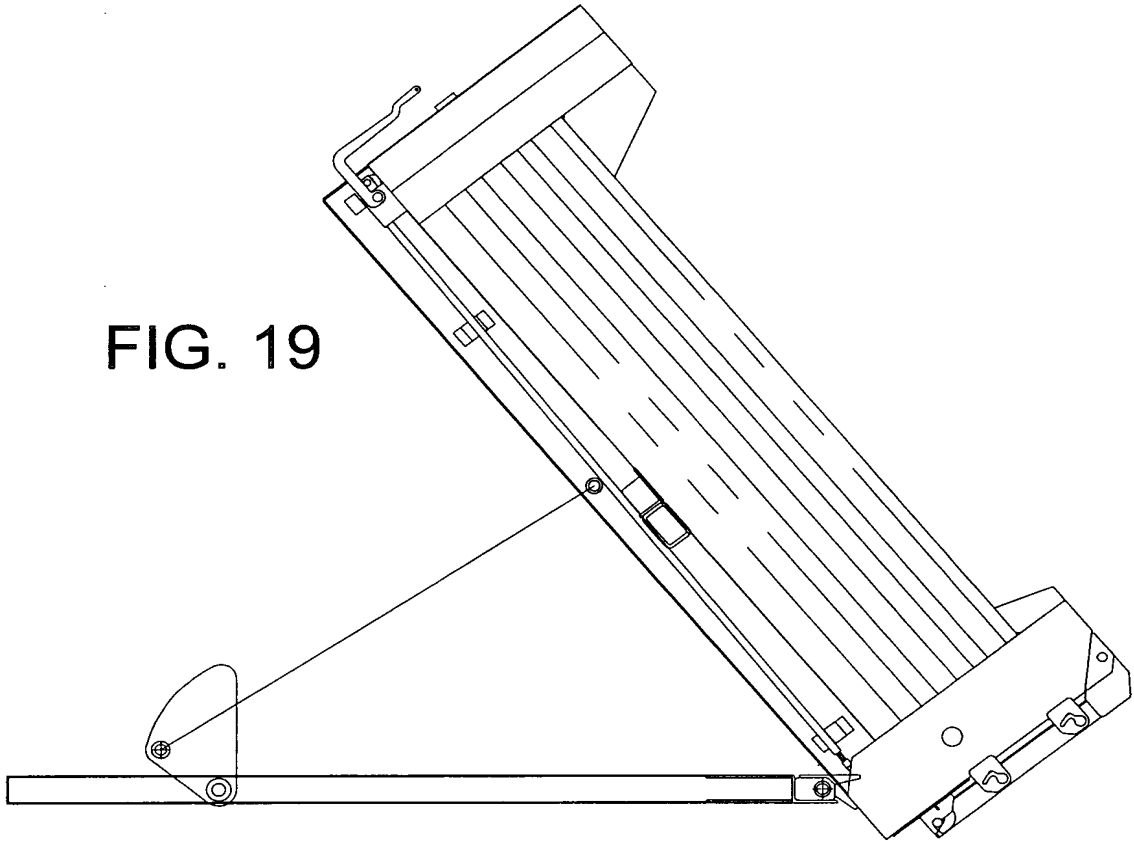


FIG. 20

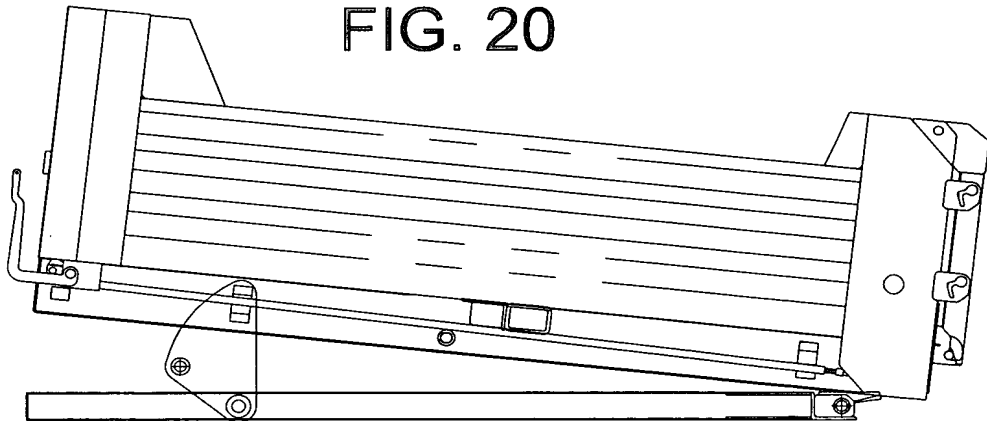


FIG. 21

